

# **COMPOSITE THERMAL INTERFACE DEVICES AND METHODS FOR INTEGRATED CIRCUIT HEAT TRANSFER**

## **Abstract**

5        A method and device for thermal conduction is provided. A thermal interface device and method of formation is described that includes advantages such as improved interfacial strength, and improved interfacial contact. Thermal interface devices are shown that include at least some degree of mechanical bonding through plastic deformation of metal. Embodiments of composite thermal interface 10 devices are shown that provide reduced device cost by limiting use of expensive materials such as diamond, or gold. Device cost is also reduced in a number of embodiments by reducing a number of manufacturing steps in the formation of integrated circuit devices.

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